

## Main Feature



1. EML Series Relays are designed for switching capacity by 16A to comply with industrial control system use.
2. Slim type and low profile (29.0 x 12.6x 15.7mm) is developed to provide end users with more flexibility in PC Board design.
3. 1 N/O contact with a tungsten pre-make contact.
4. Proper insulation distance is equipped to ensure EML will have a 5,000VAC dielectric strength between contact and coil.
5. Complete protective construction from dust and soldering flux is designed. If required, plastic epoxy
6. 1 pole 16 A, 1 NO contact (W pre-make contact + AgSnO<sub>2</sub>). 165 A / 20 ms inrush peak current.

## Contact Rating

Load Type	EML (DM)
Rated Load (Resistive)	16A 250VAC
Rated Carrying Current	16A
Max. Allowable Voltage	AC 400V
Max. Allowable Current	16A
Max. Allowable Power Force	4000VA
Contact Material	R: Ag Alloy, L: W Tungsten Load : 3000W/230VAC
Contact Capacity	inrush peak current(20ms):165A 16A.250VAC,capacitive load 140 μf TV-5 120VAC
Contact Form	SPST

## Application

Lamp Control, Audio Equipment, Domestic Appliance and Controlling Equipment...etc.

## Performance (at Initial Value)

- Contact Resistance ..... 100 mΩ Max. @1A,6VDC
- Contact Rating(resistive load)
- Operate Time ..... 8 mSec. Max.
- Release Time ..... 3 mSec. Max.
- Dielectric Strength:
  - Between Coil & Contact ..... 5,000VAC at 50/60Hz for one minute.
  - Between Contacts ..... 1,000VAC at 50/60Hz for one minute.
- Surge Strength ..... 10,000V (between coil & contact 1.2x50uSec.)
- Insulation Resistance ..... 100MΩ Min. at 500VDC.
- Max. On/Off Switching:
  - Electrical ..... 6 Cycles per Minute.
  - Mechanical ..... 300 Cycles per Minute.
- Vibration:
  - Endurance ..... 10 to 55Hz dual amplitude width 1.5mm.
  - Error Operation.....10 to 55Hz dual amplitude width 1.5mm.

- Humidity Range ..... 45~85% RH.
- Temperature Range.....-45~85°C.
- Coil Temperature Rise ..... 45°C Max.
- Shock:
  - Endurance ..... 1,000 m/S<sup>2</sup> .
  - Error Operation..... 100 m/S<sup>2</sup> .
- Life Expectancy:
  - Electrical ..... 5x10<sup>4</sup>Operations at Rated Resistive Load.  
1.2x10<sup>4</sup> Operations at Tungsten Load.
  - Mechanical..... 5x10<sup>6</sup> Operations at No Load condition.
- Contact Material..... Ag Alloy,W.
- Weight ..... About 12.5 g.

## Accessories & Sockets

- PI-50BE ..... See Page 175
- PI-50BE/3 ..... See Page 175
- PI-50-0 ..... See Page 177

## Safety Standard & Its File Number

- In Progress.

## Coil Specification (at 20°C)

Coil Sensitivity	Nominal Voltage	Nominal Current (mA)	Coil Resistance ( $\Omega \pm 10\%$ )	Power Consumption (W)	Pull-In Voltage (VDC)	Drop-Out Voltage (VDC)	Maximum Allowable Voltage (VDC)
EML DC Coil	3	130	23	Abt. 0.40	70% Maximum	10% Minimum	130%
	5	80	63				
	6	67	90				
	9	44	203				
	12	33	360				
	15	27	563				
	18	22	810				
	24	17	1440				
	48	8	5760				
	60	7	9000				

## Ordering Information

EML - SH - 1 12 D M

Capacity Type: NIL: 16A  
 Contact Form: M: One Form A  
 Coil Type: D: Standard DC Coil  
 Coil Voltage: 03: 3V, 05: 5V, 06: 6V, 09: 9V, 12: 12V, 15: 15V, 18: 18V, 24: 24V, 48: 48V, 60: 60V  
 Number of Pole: 1: One Pole  
 Type of Sealing: SS: RT II Flux Proofed Relays  
 SH: RT III Wash Tight Relays  
 Type: EML

## Classification

Model	EML
Coil Sensitivity	DC Coil
Contact Form	1A
Flow Solder Type	EML-SS-1□□DM
Plastic Sealed Typ	EML-SH-1□□DM

Dimension ( $\leq 5\text{mm} \pm 0.2\text{mm}$ ,  $> 5\text{mm} \pm 0.3\text{mm}$ , the tolerance of PCB thru hole:  $+0.1\text{mm}$ )

